

Amendments to the Claims

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

Claim 1 (Currently Amended): A semiconductor device comprising:

- a substrate;
- a first insulator layer formed on the substrate;
- a first conductive layer formed on the first insulator layer;
- a second insulator layer formed on the first conductive layer, the second insulator layer including a through hole having a substantially vertical side face;
- a second conductive layer formed on the second insulator layer;
- a dielectric sidewall structure formed on the side face of the through hole so that the dielectric sidewall structure gradually narrows the through hole; and
- a fuse formed of a conductive material that buries the narrowed through hole, said fuse having a lower end connected to the first conductive layer and an upper end connected to the second conductive layer.

Claim 2 (Previously Presented): A semiconductor device according to claim 1, wherein the fuse and the second conductive layer are formed of a same material.

Claim 3 (Currently Amended): A semiconductor device according to claim 1, wherein the dielectric sidewall structure includes a first layer formed on the side face of the through hole and a second layer formed on the first layer.

Claim 4 (Currently Amended): A semiconductor device according to claim 1, wherein a thickness of the dielectric sidewall structure is smallest at the substrate and becomes gradually larger away from the substrate.

Claim 5 (Previously Presented): A semiconductor device according to claim 1, wherein the first and second conductive layers are interconnections.

Claim 6 (Previously Presented): A semiconductor device according to claim 1, wherein the first and second conductive layers are made of aluminum.

Claim 7 (Previously Presented): A semiconductor device according to claim 1, wherein the first and second insulator layers are made of silicon oxide.

Claim 8 (Previously Presented): A semiconductor device according to claim 3, wherein the first layer is formed of silicon nitride and the second layer is formed of silicon oxide.

Claim 9 (Currently Amended): A semiconductor device comprising:

a semiconductor substrate;

a first dielectric film formed on the semiconductor substrate;

a first conductive film formed on the first dielectric film;

a second dielectric film formed on the first conductive film, the second dielectric film including a through hole that exposes the first conductive film;

a dielectric sidewall structure formed on a side surface of the through hole so that the dielectric sidewall structure gradually narrows the through hole;

a conductive material filled in the narrowed through hole; and

a second conductive film on the second dielectric film and the conductive material, so that the conductive material electrically connects the first and second conductive films to each other.

Claim 10 (Previously Presented): A semiconductor device according to claim 9, wherein the conductive material and the second conductive film are formed of a same material.

Claim 11 (Currently Amended): A semiconductor device according to claim 9, wherein the dielectric sidewall structure includes a first sidewall film formed on the side surface of the through hole and a second sidewall film formed on the first sidewall film.

Claim 12 (Currently Amended): A semiconductor device according to claim 9, wherein a thickness of the dielectric sidewall structure is smallest at the semiconductor substrate

and becomes gradually larger away from the semiconductor substrate.

Claim 13 (Previously Presented): A semiconductor device according to claim 9, wherein the first and second conductive films are made of aluminum.

Claim 14 (Previously Presented): A semiconductor device according to claim 9, wherein the first and second dielectric films are made of silicon oxide.

Claim 15 (Previously Presented): A semiconductor device according to claim 11, wherein the first sidewall film is formed of silicon nitride and the second sidewall film is formed of silicon oxide.

Claim 16 (Currently Amended): A semiconductor device comprising:

- a semiconductor substrate;
- a first conductive film formed on the semiconductor substrate;
- a dielectric film formed on the first conductive film and the semiconductor substrate, the dielectric film having a through hole that exposes the first conductive film;
- a dielectric sidewall structure formed in the through hole so that the through hole is gradually narrowed by the dielectric sidewall structure to expose the first conductive film;
- a fuse structure formed by a conductive material filled in the narrowed through

hole; and

a second conductive film on the dielectric film and the fuse structure, so that the fuse structure electrically connects the first and second conductive films to each other.

Claim 17 (Previously Presented): A semiconductor device according to claim 16, wherein the second conductive film is formed of the conductive material.

Claim 18 (Currently Amended): A semiconductor device according to claim 16, wherein the dielectric sidewall structure includes a first sidewall film formed on a side surface of the through hole and a second sidewall film formed on the first sidewall film.

Claim 19 (Previously Presented): A semiconductor device according to claim 16, wherein the first and second conductive films are made of aluminum.

Claim 20 (Previously Presented): A semiconductor device according to claim 16, wherein the dielectric film is made of silicon oxide.